

A review of the genus *Gnathostrangalia* Hayashi & Villiers, 1985 (Coleoptera: Cerambycidae: Lepturinae) from China

Jianhua HUANG^{1①}, Eduard VIVES^{2,3}, Ruigang YANG^{4,5}, Li CHEN⁶

1. Key Laboratory of Cultivation and Protection for Non-Wood Forest Trees (Central South University of Forestry and Technology), Ministry of Education, Changsha, Hunan 410004, China

2. Museu de Ciències Naturals de Barcelona, P. O. Box 593, Barcelona 08003, Spain

3. Animal Biology Department of Barcelona University, Barcelona 08003, Spain

4. Scientific Research Academy of Guangxi Environmental Protection, Nanning, Guangxi 530022, China

5. The Collaborative Innovation Center of the Ecological Environment & Integration Development in the Xijiang River Basin, Nanning, Guangxi 530022, China

6. College of Plant Protection, Southwest University, Chongqing 400715, China

Abstract: Chinese species of the genus *Gnathostrangalia* are reviewed. Four species of the genus from Damingshan Nature Reserve, Guangxi are redescribed. *G. aurivillei* (Pic, 1903), *Gnathostrangalia bilineatithorax* (Pic, 1922) and *G. rufovittata* (Pic, 1922) are newly recorded in China. Male of *G. elliptica* Chen & Chiang, 1996 is discovered and described for the first time. A key to species of the genus *Gnathostrangalia* is provided.

Key words: Chrysomeloidea; Lepturini; taxonomy; key

中国长颊花天牛属记述（鞘翅目：天牛科：花天牛亚科）

黄建华^{1①}, Eduard Vives^{2,3}, 杨瑞刚^{4,5}, 陈力⁶

1. 经济林培育与保护省部共建教育部重点实验室(中南林业科技大学), 湖南 长沙 410004; 2. Museu de Ciències Naturals de Barcelona, P. O. Box 593, Barcelona 08003, Spain; 3. Animal Biology Department of Barcelona University, Barcelona 08003, Spain; 4. 广西壮族自治区环境保护科学研究院, 广西 南宁 530022; 5. 广西高校西江流域生态环境与一体化发展协同创新中心, 广西 南宁 530022; 6. 西南大学植物保护学院, 重庆 北碚 400715

摘要: 记述中国长颊花天牛属 5 种, 重新描述了采自广西大明山自然保护区的长颊花天牛属 4 种, 其中长颊花天牛 *G. aurivillei* (Pic, 1903)、双线长颊花天牛 *Gnathostrangalia bilineatithorax* (Pic, 1922) 和黑条长颊花天牛 *G. rufovittata* (Pic, 1922) 为中国新纪录种, 卵斑长颊花天牛 *Gnathostrangalia elliptica* Chen & Chiang, 1996 的雄性为首次发现和描述。文中还提供了世界长颊花天牛属分种检索表。

关键词: 叶甲总科; 花天牛族; 分类; 检索表

Introduction

The genus *Gnathostrangalia* was established by Hayashi & Villiers (1985) with *Strangalia aurivillei* Pic, 1903 as type species. Seven species are known in the genus worldwide so far (Tavakilian 2016) and only two species are known from China (Chiang *et al.* 1993; Jiang & Chen 2001). In this paper, we study the materials of the genus *Gnathostrangalia* from Damingshan Nature Reserve of Guangxi, a place with rich biodiversity but a few early investigations on the fauna of longicorn beetles (Lin & Jiroux 2011; Lin & Murzin 2012; Xie *et al.* 2012; Yang *et al.* 2013; Yang & Huang 2013; Lin *et al.* 2014; Xie *et al.* 2015). Our study increase the Chinese species of the genus to five. The four species found in Damingshan are redescribed based on the materials examined. *G. aurivillei* (Pic, 1903), *G. bilineatithorax* (Pic, 1922) and *G. rufovittata* (Pic, 1922) are newly recorded in China. Male of *G. elliptica* Chen & Chiang, 1996 is discovered and described for the first time. All Chinese species of the genus are reviewed. A key to world species of the genus is provided. All specimens examined are deposited in the insect collection of Central South University of Forestry and Technology and personal collection of Eduard Vives (except the types of *Gnathostrangalia simianshana* Chiang & Chen).

Taxonomy

Genus *Gnathostrangalia* Hayashi & Villiers, 1985

Gnathostrangalia Hayashi & Villiers, 1985: 13, 63; Chiang *et al.*, 1993: 53; Jiang & Chen, 2001: 207.

Type species: *Strangalia aurivillei* Pic, 1903, by original designation.

Generic diagnoses. Body long and stout. Head small, prolonged ahead and fairly constricted just behind well developed eyes forming a distinct neck; genae more or less longer than eye diameter. Antennae not shorter than body in male, slightly dilated apically. Pronotum campanuliform, distinctly constricted just behind anterior margin; anterior margin distinctly narrower than posterior margin; lateral sides distinctly broadened posteriorly, especially from the middle, weakly arcuately inflated laterally at middle, shallowly constricted just before the posterior margin; posterior margin distinctly bisinuate, with hind angles sharply produced laterally, but scarcely arriving at insides of elytral humeri. Elytra long, fairly straightly narrowed posteriorly from rather broad base to truncate or emarginate apices; marginal angles sharp. Fifth abdominal segment in male simple conical or deeply and broadly excavated beneath to form distinct vertical lateral lobes, and in female rather simple. Legs slender and long, hind pair longest, hind femora arriving at elytral apex.

The genus is somewhat allied to *Pygostrangalia* Pic. However, it differs from the latter in having a longer forehead, broader prothorax with more developed hind angles, a broader elytra at base and rather straightly narrowed posteriorly.

Key to *Gnathostrangalia* species

1. Elytra yellowish to reddish brown except the black apices2
- . Elytra yellowish to reddish brown with black transverse maculations and/or longitudinal stripes3
2. Elytra straightly narrowed from the base to apex (China; Vietnam)*G. aurivillei* (Pic)
- . Elytra distinctly arcuately narrowed from the base to apex; the apex slightly curved forwards (Laos).....
.....*G. conspicua* Holzschuh

3. Head and pronotum black; antennae bicolored4
- Head and pronotum yellowish to reddish brown, at least head not completely black; antennae completely black or yellowish brown5
4. Elytra with a black longitudinal stripe nearly throughout the disc; antennae with antennomeres 3–8 yellowish brown in basal half and black in apical half, antennomeres 9–10 as well as the base of antennomere 11 white or pale (China; Vietnam)..... *G. rufovittata* (Pic)
- Elytra black in apical half, with two black transverse bands in basal half; antennae with basal half black and apical half yellowish brown (China) *G. simianshana* Chiang & Chen
5. Pronotum with a pair of black longitudinal stripes (China; Vietnam).....*G. bilineatithorax* (Pic)
- Pronotum without a pair of black longitudinal stripes6
6. Elytra black apically, with a big black oval maculation in the middle of each elytron (China)
..... *G. elliptica* Chen & Chiang
- Elytra yellowish brown, with a black transverse band in apical fourth, a black longitudinal stripe in basal half, and a black oval maculation in the middle (Borneo)..... *G. longiceps* (Aurivillius)

1. ***Gnathostrangalia aurivillei* (Pic, 1903)** (Figs. 1–9) , new record to China

Strangalia aurivillei Pic, 1903: 29 (Type locality: Vietnam; type depository: Muséum National d'Histoire Naturelle, Paris).

Strangalia (*Parastrangalis*) *aurivillii* Pic; Aurivillius, 1912: 241.

Gnathostrangalia aurivillei (Pic); Hayashi & Villiers, 1985: 13, 66; Chiang *et al.*, 1993: 54.

Strangalia aurivillei v. *testaceiceps* Pic, 1943a: 1 (Type locality: Vietnam; type depository: Muséum National d'Histoire Naturelle, Paris); synonymized by Hayashi & Villiers, 1985: 66.

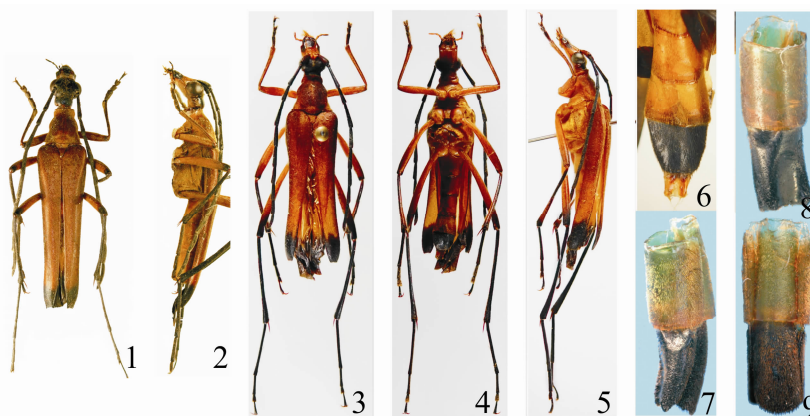
Parastrangalia valeria Pic, 1930: 14 (Type locality: Vietnam; type depository: Muséum National d'Histoire Naturelle, Paris); synonymized by Hayashi & Villiers, 1985: 13.

Strangalia aurivillii v. *valeria* (Pic); Pic, 1943b: 6.

Female. Body length: 20.0–20.5 mm; humeral width: 5.0–5.3 mm. Body yellowish to reddish brown. Mandibles, anterior portions of clypeus and genae, dorsum of vertex and occiput, eyes, antennae, fore and middle tarsi, apices of hind femora, hind tibiae and tarsi, apical sixth of elytra and terminal abdominal segment black, middle tibiae dark brown to black. Antennae, pronotum, dorsum of elytra covered with dense black decumbent pubescence, ventral surface of thorax and abdomen covered with dense golden pubescence, legs covered with pubescence in the same color as the ground surface.

Body slightly stout. Head much prolonged. Mandibles elongate, slightly incurved and shining; clypeus small and transverse; frons long, facial carinae distinct and parallel, apical half distinctly upcurved, densely punctate and deeply protruding into between mandibles, and the remaining half shining, with a shallow longitudinal sulcus in the middle; genae extremely long, one and a fifth times as long as the diameter of the eyes; vertex flat and broad, with a fine longitudinal sulcus; occiput substantially constricted behind the eyes, forming a distinct neck; antennal tubercles small and distinct, deeply separated from each other. Antennae moderately slender, slightly shorter than body; scape slightly stout, as long as the fourth antennomere; the third antennomere as long as the fifth one, and the remaining antennomeres decreasing gradually in length. Pronotum campaniform; disc with an indistinct median longitudinal sulcus; anterior margin nearly half as broad as the posterior one; lateral sides bisinuate, distinctly constricted just behind the anterior margin, strongly convex anterior to the middle, broadly concave after the middle and finally broadened posteriorly; posterior margin

bisinuate; lateroposterior angles developed and sharp, just reaching the humeral corners of the elytra. Elytra elongate, lateral margins straightly narrowed posteriorly, with the basal fourth raised into thick carinae; apices obliquely truncate, with marginal corner angulate and sutural corner blunt. Legs slender and long, with femora much thicker than tibiae and tarsi; fore and middle tarsi thin, never thicker than tibiae; middle tarsi with the first segment much longer than the second and third segments, nearly as long as the remaining segments combined; hind femora not reaching the elytral apices; hind tarsi with the first segment slightly longer than the remaining segments combined. Abdomen cylindrical; terminal ventrite linguoid (tongue-like), with posterior margin straight and lateroposterior corners rounded, and apical half broadly longitudinally sulcate in the middle.



Figures 1–9. *Gnathostrangalia aurivillei* (Pic, 1903). 1, 2, 7–9: ♂; 3–6: ♀. 1, 2. Adult, dorsal and lateral views. 3–5. Adult, dorsal, ventral and lateral views. 6. Abdomen, ventral view. 7–9. Terminal abdominal segment, lateral, ventral and dorsal views.

Male. Body length: 19.0–19.4 mm; humeral width: 4.2–4.5 mm. Similar to female. Body slightly more slender than female, terminal abdominal ventrite developed, broadly and deeply depressed, and expanded laterally to form large vertical lobes.

Specimens examined. **China**, 1♀, Beicangkou, Damingshan, Wuming County, Guangxi, 953 m, 06-VI-2016, Ruigang YANG leg.; 1♂, **China**, Mt. Hellingshan, Changjiang County, Hainan Province, 1560 m, 13-VI-2008, local collector (E. Vives coll.); 1♀, **China**, Mt. Dayanshan, Gongcheng County, Guangxi Province, 01-V-2002, B. Siska Leg. (E. Vives coll.). **Vietnam**, 1♂, Sapa, Lao Cai Province, 1600 m, 10-IX-2015, local collector (E. Vives coll.).

Distribution. China (Guangxi, Hainan); Vietnam.

Remarks. Wang (2014) published pictures of a pair of specimens from Huashan, Gongcheng County, Guangxi (No. 0793+1) as a form similar to *Pyrocalymma pyrochroides* Thomson, 1864. However, it is obvious that Wang's pictures represent the species *Gnathostrangalia aurivillei* (Pic, 1903).

2. *Gnathostrangalia bilineatithorax* (Pic, 1922) (Figs. 10–18), new record to China

Leptura bilineatithorax Pic, 1922a: 22 (Type locality: Vietnam; type depository: Muséum National d'Histoire Naturelle, Paris).

Gnathostrangalia bilineatithorax (Pic); Hayashi & Villiers, 1985: 13, 66; Chiang *et al.*, 1993: 54; Vives,

2001: 3; Löbl & Smetana, 2010: 100.

Pygostrangalia bilineatithorax (Pic); Holzschuh, 1991: 24; Hua, 2002: 229; Hua *et al.*, 2009: 467.

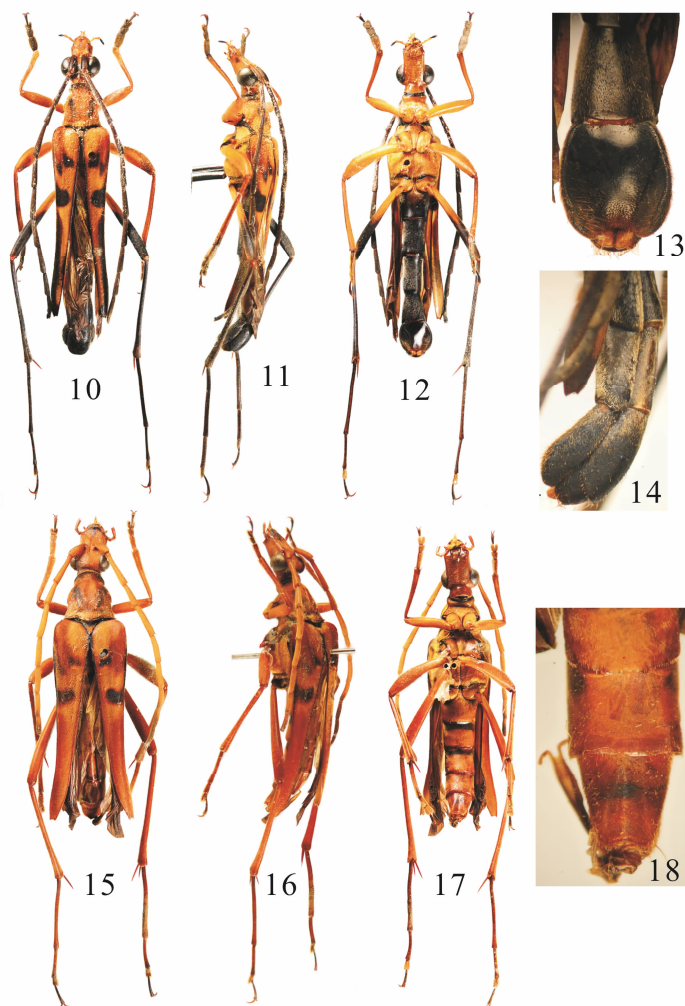
Strangalia (s. str.) *tonkinea* Murzin, 1988: 162 (Type locality: Vietnam; type depository: Zoological Museum, University of Moscow); synonymized by Holzschuh, 1991: 24.

Male. Body length: 23.0–26.0 mm; humeral width: 4.5–5.5 mm. Body yellowish to reddish brown, covered with dense pubescence having the same color as the ground. Apical maxillary segment, eyes, antennae, apical sixth to half of hind femora, hind tibiae and tarsi, and abdomen black, fore and middle tarsi dark brown. Genae with an oval spot in the anterior portion. Pronotum margined with black lines, disc with a longitudinal black strip at each side. Elytra yellowish to reddish brown, with two black spots at the basal fourth, a large semicircular black maculation in the middle which extends anteriorly to form a black stripe along the lateral margin to near the humera; apical half black in the marginal two-thirds and yellowish brown in the sutural third anterior to near the apex; sutural carinae black. Mesosternite, mesepisternum, mesepimeron, metasternite, metepisternum margined with black lines, mesocoxae with a black stripe at the anterior margin of the outside, external sides of metacoxae black.

Body slightly elongate. Head much prolonged; mandibles elongate and shining, slightly incurved apically; clypeus large and square; frons extremely long, shining and sparsely punctate, with facial carinae distinct and parallel, middle longitudinal sulcus distinct and margined by sinuate lateral carinae, anterior half distinctly upcurved to form a conspicuous transverse fold, anterior margin deeply protruding into between mandibles; genae nearly as long as the diameter of eyes; vertex flat, with distinct fine longitudinal sulcus in the middle; occiput extremely constricted after the eyes to form a distinct neck. Antennae nearly as long as the body, antennal tubercles small and distinctly separated from each other. Pronotum campaniform; disc with an indistinct median longitudinal sulcus; anterior margin nearly half as broad as the posterior one; lateral sides bisinuate, distinctly constricted just behind the anterior margin, strongly convex anterior to the middle, broadly concave after the middle and finally broadened posteriorly; posterior margin bisinuate; lateroposterior angles undeveloped, not reaching the humeral corners of the elytra. Elytra elongate, distinctly broader at the base than posterior margin of the pronotum; lateral sides nearly straightly narrowed apically and slightly excurved at the level of the apical third, with the basal fourth raised into thick carinae; apices obliquely truncate, with marginal corners angulate and sutural corners blunt. Legs elongate, with femora much thicker than tibiae and tarsi; fore and middle tarsi thick and expanded, slightly broader or as broad as the tibiae; middle tarsi with the first segment only slightly longer than the second and third segments; hind femora distinctly shorter than the body; hind tarsi with the first segment slightly longer than the remaining segments combined. Abdomen cylindrical, terminal ventrite developed, broadly and deeply depressed, and expanded laterally to form large vertical lobes.

Female. Body length: 23.0–25.0 mm; humeral width: 5.0–6.0 mm. Similar to male. Body much more robust than male. Antennae yellowish to reddish brown with the apex of the eighth antennomere and the ninth to eleventh antennomeres black or dark. Legs and apical half of the elytra completely yellowish to reddish brown, fore and middle tarsi not expanded, just as broad as or slightly thinner than the tibiae; middle tarsi with the first segment much longer than the second and third segments, nearly as long as the remaining segments combined. The

second and third abdominal ventrites with black transverse band at the base or sometimes with only a black spot at each side just as the first and fourth ventrites, and sometimes the spots in the fourth ventrite indistinct or completely absent. Abdomen elongately conical, terminal ventrite deeply and broadly depressed, posterior margin broadly concave in the middle, and the lateral corners rounded.



Figures 10–18. *Gnathostrangalia bilineatithorax* (Pic, 1922). 10–14: ♂; 15–18: ♀. 10–12. . Adult, dorsal, lateral and ventral views; 13, 18. Terminal abdominal ventrite, ventral view; 14. Terminal abdominal ventrite, lateral view; 15–17. Adult, dorsal, lateral and ventral views.

Specimens examined. **China**, 1♂, Longmumiao, Damingshan, Wuming County, Guangxi, 1220 m, 11-V-2012, Ruigang YANG; 1♂, 24 km, Damingshan, Wuming County, Guangxi, 1250 m, 18-V-2012, Ruigang YANG; 2♀ Shangshuiyuancun, Damingshan, Shanglin County, Guangxi, 08-V-2012, Ruigang Yang; 1♂, Jinshi, Xing'an County, Guangxi, VII-2000, collector unknown; 1♀, Jinshi, Xing'an County, Guangxi, 05-VII-2010, collector unknown; 1♀, Guposhan, Hezhou City, Guangxi, 10-VII-2010, collector unknown.

Distribution. China (Guangxi); Vietnam.

Remarks. Holzschuh (1991) transferred this species to the genus *Pygostrangalia* Pic, 1954, and suspected that *Strangalia tienmushana* Gressitt, 1939 might be a junior synonym of this species. Hua (2002) followed Holzschuh's opinion and formally listed *Strangalia tienmushana* Gressitt, 1939 under the species as a junior synonym. However, Vives (2001) and Löbl & Smetana (2010) still treated the species as a member of the genus *Gnathostrangalia* Hayashi & Villiers, 1985. After a preliminary comparison of the specimens from Guangxi with those from Zhejiang, we found that there are several minor differences in external morphology between the male *Gnathostrangalia bilineatithorax* and *Strangalia tienmushana*: in *Strangalia tienmushana*, mesocoxae without a black stripe at the anterior margin of the outside, external sides of metacoxae yellowish brown but not black; apices of hind femora and basal half of hind tibiae yellowish brown but not black. Considering there are variations in the color pattern both in *Gnathostrangalia bilineatithorax* and *Strangalia tienmushana*, a further study based on more materials is needed (which is out of the scope of this present study). Since the record of the species in China by Hua (2002) was based on an uncertain synonymy, the discovery of the species in Damingshan is considered here as its first record in China.

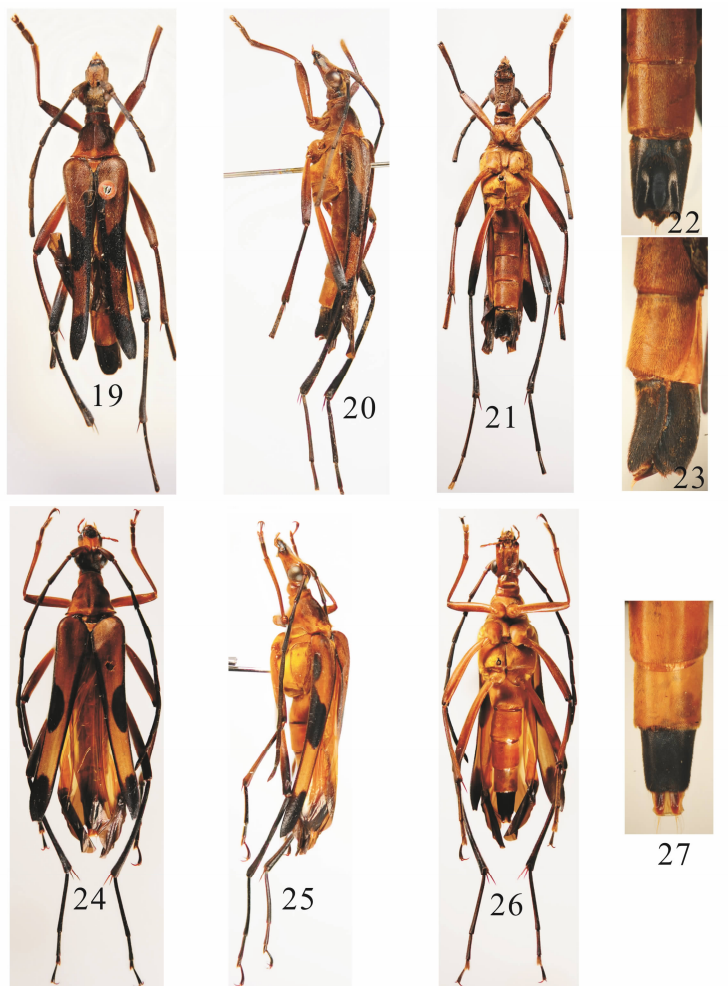
3. *Gnathostrangalia elliptica* Chen & Chiang, 1996 (Figs. 19–27)

Gnathostrangalia elliptica Chen & Chiang, 1996: 188 (Type locality: China; type depository: Insect Collection of the Southwest Agricultural University, Chongqing, China); Jiang & Chen, 2001: 207; Hua *et al.*, 2009: 457; Löbl & Smetana, 2010: 100; Yang & Huang, 2013: 169.

Male. Body length: 23.0 mm; humeral width: 4.5 mm. Body yellowish brown, dorsal surface covered with dense black decumbent pubescence and ventral surface covered with dense golden decumbent pubescence. Mandibles, clypeus, anterior half of genae, antennae, vertex and occiput, apical fourth of hind femora, hind tibiae and tarsi, and terminal abdominal segment black; frons, posterior half of genae, eyes, pronotum, fore and middle legs dark brown. Elytra yellowish brown, margined with fine black lines in sutural margins and posterior two-thirds of lateral margins, distinctly marked with a black large elliptical maculation in the middle which extends anteriorly along both lateral and sutural margins to form a black strip; apical fourth black.

Body slightly elongate. Head extremely prolonged; mandibles elongate and slightly incurved apically; clypeus small and transverse; frons sparsely punctate and shining, with facial carinae distinct and parallel, and median longitudinal sulcus indistinct, broad and shallow; genae slightly longer than the diameter of eyes; vertex flat, occiput substantially constricted just behind the eyes; antennae nearly as long as the body. Pronotum campaniform; disc with a distinct median longitudinal sulcus; anterior margin nearly half as broad as the posterior margin; lateral sides bisinuate, distinctly constricted just behind the anterior margin, strongly convex anterior to the middle, broadly concave after the middle and finally broadened posteriorly; posterior margin bisinuate; lateroposterior angles developed and sharp, just reaching the humeral corners of the elytra. Elytra elongate; lateral margins straightly narrowed posteriorly and slightly excurved at the level of the apical third, with the basal fourth raised into thick carinae; apices obliquely truncate, with marginal corner angulate and sutural corner blunt. Legs slender and long, with femora much thicker than tibiae and tarsi; fore and middle tarsi not expanded, just as broad as or slightly thinner than the tibiae; middle tarsi with the first

segment much longer than the second and the third segments; hind femora nearly reaching the elytral apices; hind tarsi with the first segment slightly longer than the remaining segments combined. Abdomen cylindrical; terminal ventrite broadly and deeply depressed, forming developed vertical lateral lobes.



Figures 19–27. *Gnathostrangalia elliptica* Chen & Chiang, 1996. 19–23: ♂; 24–27: ♀. 19–21. Adult, dorsal, lateral and ventral views; 22, 27. Terminal abdominal ventrite, ventral view; 23. Terminal abdominal ventrite, lateral view; 24–26. Adult, dorsal, lateral and ventral views.

Female. Body length: 22.0–24.5 mm; humeral width: 5.0–6.0 mm. Similar to male. Body much stouter and more brighter than male, fore and middle legs yellowish brown, and the black elliptical elytral maculations not reaching the sutural margins, middle tarsi with the first segment much longer than the second and the third segments, nearly as long as the remaining segments combined.

Specimens examined. China, 1♂2♀, 24 km, Damingshan, Wuming County, Guangxi, 1250 m, 18-V-2012, Ruigang YANG.

Distribution. China (Guangxi).

Remarks. This species was described based on a single female from Damingshan, Wuming County, Guangxi, China. The male is now found from the type locality and described for the first time. The authors of this species were cited as “Chiang & Chen” by Jiang & Chen (2001). However, there was no special designation of the authorship for the species in the original reference, and the order of the original reference was “Chen & Chiang”. Therefore, the correct order of the authors for this species should be “Chen & Chiang”. Wang (2014) published pictures of a pair of specimens from Huashan and Shibaling, Gongcheng County, Guangxi (No. 0793+2) as a form similar to *Pyrocalymma pyrochroides* Thomson, 1864. However, it is obvious that Wang’s pictures represent the species *Gnathostrangalia elliptica* Chen & Chiang, 1996.

4. *Gnathostrangalia rufovittata* (Pic, 1922) (Figs. 28–36), new record to China

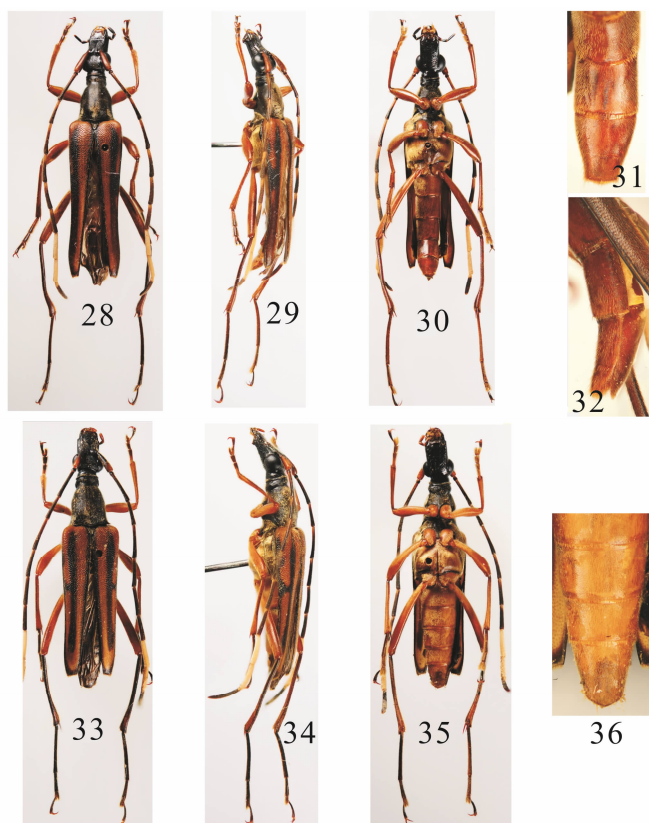
Strangalia rufovittata Pic, 1922b: 10 (Type locality: Vietnam; type depository: Muséum National d'Histoire Naturelle, Paris).

Gnathostrangalia rufovittata (Pic); Hayashi & Villiers, 1985: 13, 67; Chiang *et al.*, 1993: 53.

Male. Body length: 18.0–19.0 mm; humeral width: 3.5–4.5 mm. Body covered with dense short golden pubescence. Head, prothorax, scutellum, mesosternum, mesepisternum, mesepimeron and metepisternum black, metasternum, legs and abdomen yellowish brown. Antennae with scape and pedicel dark brown, antennomere 3 dark brown in basal half and black in apical half, antennomeres 4 to 8 dark brown in basal third or fourth and black in the remaining parts, antennomeres 9 to 10 and the basal eighth of the apical antennomere yellowish white, and the remaining of apex antennomere black. Elytra yellowish brown, marked with three black longitudinal stripes: the sutural stripe slightly narrow, extending from the base to the apex; the median stripe much broader than the sutural stripe, extending from near the humeral corner to the apex, and the color becoming lighter after the middle in some individuals; the marginal stripe expanding into semicircular maculations in the middle and behind the humerus; the median and the marginal stripes contiguous in the middle, fused in apical third in some individuals to form a small yellowish brown spot after the middle.

Body moderate-sized and well-proportioned. Head extremely prolonged, strongly constricted just behind the posterior margins of the eyes to form a neck. Mandibles slender, roundedly incurved, sparsely punctate and shining. Clypeus small and transverse. Frons long and rectangular, densely punctate; lateral sides parallel and carinate; anterior margin deeply protruded between the mandibles; anterior portion upcurved at the level slightly behind the mandibles; median longitudinal sulcus fine and shallow, extending posteriorly to occiput, and broadened anteriorly to form a shiny triangular area. Genae extremely prolonged, much longer than the diameter of the eyes. Vertex broad and flat, densely and finely punctate. Antennal tubercles small and indistinct. Antennae filiform, slightly longer than body; scape elongate, nearly as long as the fourth segment; the third segment longer than the fourth and nearly as long as the fifth segment. Pronotum campaniform, broadly and deeply constricted a little distantly behind the anterior margin, densely and extremely finely punctate; anterior margin just half as broad as posterior margin; lateral sides slightly convex in the middle, slightly constricted in the posterior half; posterolateral corners sharp and short, not reaching the humeral corners; posterior margin bisinuate. Elytra elongate, densely punctate, slightly depressed inside the humeral corners; lateral sides straightly narrowed posteriorly and slightly

excurred at the level of the apical third; apices obliquely truncate, sutural and marginal spines small and distinct. Legs slightly slender, with femora much thicker than tibiae and tarsi; fore and middle femora fusiform; fore and middle tarsi thin, not broader than tibiae; middle tarsi with the first segment only slightly longer than the second and the third segments; hind femora rhabditiform; hind tibiae strongly incurved at the level of the apical third and expanded apically; hind tarsi with the first segment nearly as long as the remaining segments combined. Abdomen thin and cylindrical; apical segment subconical, with posterior margin slightly convex, posterolateral corners bluntly rounded.



Figures 28–36. *Gnathostrangalia rufovittata* (Pic, 1922). 28–32: ♂; 33–36: ♀. 28–30. Adult, dorsal, lateral and ventral views; 31, 36. Terminal abdominal ventrite, ventral view; 32. Terminal abdominal ventrite, lateral view; 33–35. Adult, dorsal, lateral and ventral views.

Female. Body length: 16.0–19.0 mm; humeral width: 3.5–4.5 mm. Similar to male; middle tarsi with the first segment only slightly longer than the second and the third segments, but never longer than the remaining segments combined; abdomen thick and conical, apical segment with posterior margin strongly convex and posterolateral corners rounded.

Specimens examined. China, 2♂1♀, Longting, Damingshan, Wuming County, Guangxi, 1309 m, 05-VII-2012, Ruigang YANG; 1♂1♀, Linyazhily, Damingshan, Wuming County, Guangxi, 1235 m, 06-VII-2012, Ruigang YANG.

Distribution. China (Guangxi); Vietnam.

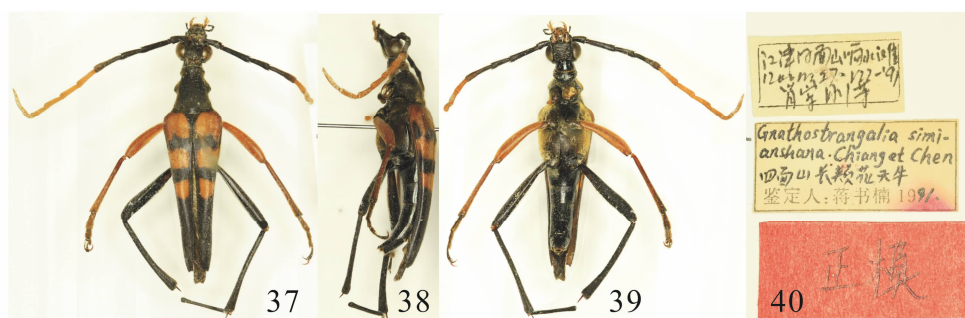
5. *Gnathostrangalia simianshana* Chiang & Chen, 1993 (Figs. 37–40)

Gnathostrangalia simianshana Chiang & Chen, in Chiang *et al.*, 1993: 54 (Type locality: China; type depository: Insect Collection of the Southwest Agricultural University, Chongqing, China); Jiang & Chen, 2001: 207.

Specimens examined. 1♀(**holotype**), China, Xiangshuitan, Simianshan, Jiangjin, Chongqing, 1200 m, 27-VII-1991, Youping YIN leg; 1♀(**paratype**), data the same as holotype, Chonggang XIAO leg.

Distribution. China (Chongqing).

Remarks. After the examination of the holotype, we found that the genae of the holotype female was distinctly shorter than the diameter of the eyes, and this is incongruent with the generic diagnosis of *Gnathostrangalia*. Possibly, this species is not a member of the genus *Gnathostrangalia*. We are waiting for the discovery of more materials of the species, especially the male to clarify its taxonomic position.



Figures 37–40. *Gnathostrangalia simianshana* Chiang & Chen, 1993, holotype female. 37. Adult, dorsal view; 38. Same, lateral view; 39. Same, ventral view; 40. Label.

Acknowledgements

We would like to thank Dr. Jianyue QIU for her help in taking photos of the type of *Gnathostrangalia simianshana* Chiang & Chen. This study is supported by Guangxi Natural Science Foundation (2014GXNSFAA118069, 2010GXNSFA013070) and partially by the National Natural Science Foundation of China (31260523, 31540055).

References

- Aurivillius C. 1912. Cerambycidae, Cerambycinae. *Coleopterorum Catalogus*, 39: 1–574.
- Chen L & Chiang SN. 1996. Three new species of Lepturinae (Coleoptera: Cerambycidae) from China. *Entomotaxonomia*, 18(3): 188–192.
- Chiang SN, Chen L & Wang WK. 1993. Notes on the genus *Gnathostrangalia* Hayashi with descriptions of two new species from China (Coleoptera: Cerambycidae). *Entomotaxonomia*, 15(1): 53–58.
- Hayashi M & Villiers A. 1985. Revision of the Asian Lepturinae (Coleoptera : Cerambycidae) with special reference to the type specimens' inspection. Part I. *Bulletin of the Osaka Jonan Women's Junior College*, 19-20(1): 1–75.

- Holzschuh C. 1991. Neue Bockkfer aus Europa und Asien II, 63 neue Bockkfer aus Asien, vorwiegend aus China und Thailand (Coleoptera: Disteniidae und Cerambycidae). *FBVA Berichte-Schriftenreihe der Forstlichen Bundesversuchsanstalt in Wien*, 60: 1–71.
- Holzschuh C. 2008. Beschreibung von 60 neuen Bockkfern und einer neuen Gattung aus der orientalischen Region, vorwiegend aus Laos und Borneo (Coleoptera, Cerambycidae). *Entomologica Basiliensia et Collectionis Frey*, 30: 149–241.
- Hua LZ. 2002. *List of Chinese Insects. Volume 2*. Sun Yat-sen University Press, Guangzhou, 612 pp.
- Hua LZ, Nara H, Saemulson GA & Lingafelter SW. 2009. *Iconography of Chinese Longicorn Beetles (1406) in Color*. Sun Yat-sen University Press, Guangzhou, 474 pp.
- Jiang SN & Chen L. 2001. Coleoptera Cerambycidae Lepturinae. *Fauna Sinica, Insecta*, 21: 1–296.
- Lin MY, Bi WX & Jiroux E. 2014. Three new synonyms of *Mecynippus ciliates* (Gahan, 1888) (Cerambycidae: Lamiinae: Monochamini). *Journal of Insect Biodiversity*, 2(5): 1–6.
- Lin MY & Jiroux E. 2011. Notes on the genera *Pseudapriona* Breuning, 1936, *Ithocritus* Lacordaire, 1872 and *Ioesse* Thomson, 1864, of the tribe Petrognathini (Coleoptera, Cerambycidae, Lamiinae). *Les Cahiers Magellanes (NS)*, 5: 104–114.
- Lin MY & Murzin SV. 2012. A study on the apterous genus *Clytomelegena* Pic, 1928 (Coleoptera, Disteniidae). *ZooKeys*, 216: 13–21.
- Lbl I & Smetana A. 2010. *Catalogue of Palaearctic Coleoptera. Volume 6. Chrysomeloidea*. Apollo Books, Stenstrup, 924 pp.
- Murzin SV. 1988. New species of Timber-Beetles (Coleoptera, Cerambycidae) from Viet-Nam. In: Medvedev LN & Striganova BR (Eds.), *Fauna i Ekologiya Zhivotnykh Vietnama*. Nauka, Moscow, pp.1–198.
- Pic M. 1903. Contribution  la Faune du Tonkin. *Matriaux pour servir  l'tude des Longicornes*, 4(2): 28–31.
- Pic M. 1922a. Nouveauts diverses. *Mlanges Exotico-Entomologiques*, 36: 1–32.
- Pic M. 1922b. Nouveauts diverses. *Mlanges Exotico-Entomologiques*, 37: 1–32.
- Pic M. 1930. Nouveauts diverses. *Mlanges Exotico-Entomologiques*, 56: 1–36.
- Pic M. 1943a. Opuscula martialia X. *L'Echange, Revue Linnenne, Numro spcial*, 10: 1–16.
- Pic M. 1943b. Opuscula martialia XI. *L'Echange, Revue Linnenne, Numro spcial*, 11: 1–16.
- Tavakilian G. 2016. Base de donnees Titan sur les Cerambycids ou Longicornes. Available from: <http://lis-02.snv.jussieu.fr/titan/> (Accessed 3 May 2016).
- Vives E. 2001. Notes on Lepturinae (VI) A propsito de algunos Lepturinae y Vesperinae nuevos o poco conocidos del sudeste asitico (Coleoptera, Cerambycidae). *Les Cahiers Magellanes*, 9: 1–20.
- Wang ZC. 2014. Monographia of original colored longicorn beetles of China. Basics volume 1. Scientific and Technical Documentation Press, Beijing, 594 pp.
- Xie GL, Huang JH, Wang WK & Xiang LB. 2015. First record of the genus *Mimonemophas* Breuning (Coleoptera: Cerambycidae: Lamiinae: Monochamini) from China with description of a new species. *Zootaxa*, 4057(4): 595–600.
- Xie GL, Shi FM & Wang WK. 2012. Synopsis of the genus *Mimotheustus* Pic with description of a new species from China (Coleoptera: Cerambycidae: Lamiinae). *Zootaxa*, 3385: 62–68.
- Yang RG & Huang JH. 2013. Cerambycidae. In: Zhou SY & Zhou PN (Eds.), *Insects of Damingshan, Guangxi*. Guangxi Normal University Press, Guilin, pp. 168–181.
- Yang RG, Vives E & Huang JH. 2013. Two newly recorded species of Cerambycidae (Coleoptera) from China. *Entomotaxonomia*, 35(1): 41–44.